

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

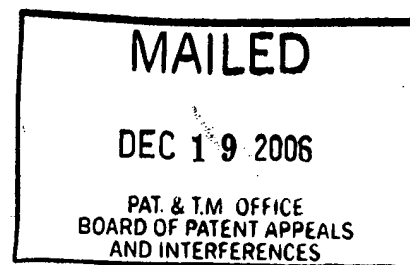
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte Jae Yong Park, Sung Ki Kim,
Myung Ho Lee, and Ock Hee Kim

Appeal No. 2006-3146
Application No. 10/020,986
Technology Center 2800

ON BRIEF



Before THOMAS, DIXON, and HOMERE, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the Examiner's final rejection of claims 1 and 4-34, which are all of the claims pending in this application. Claims 2 and 3 have been cancelled.

We AFFIRM.

BACKGROUND

The Appellants' invention relates to an electro-luminescence display with a heat-dissipating layer. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. An electro-luminescence device, comprising:

a transparent substrate;

a plurality of pixel areas including a plurality of scanning lines and a plurality of data lines formed on the transparent substrate;

a plurality of pixel electrodes formed on the plurality of pixel areas;

an electro-luminescent layer formed over the plurality of pixel electrodes;

a metal electrode formed on the electro-luminescent layer;

a seal cover plate for sealing the electro-luminescent layer;

a sealant for adhering the seal cover plate to the transparent substrate;

a heat-exhausting layer formed on the metal electrode;
and

a protective film formed between the seal cover plate and the heat-exhausting layer wherein the protective film has a multi-layer structure of at least a moisture-absorbing layer and a moisture-proof layer.

PRIOR ART

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Appellants' Admitted Prior Art (AAPA) in figure 1 and associated discussion at pages 3-5 of the specification.

Shi et al. (Shi)	5,811,177	Sep. 22, 1998
Gledhill et al. (Gledhill)	6,180,176	Jan. 30, 2001
Gyotoku et al. (Gyotoku)	6,195,142	Feb. 27, 2001
Yang et al. (Yang)	6,383,048	May 7, 2002

REJECTIONS

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants regarding the above-noted rejections, we make reference to the Examiner's answer (mailed Apr. 19, 2006) for the reasoning in support of the rejection, and to Appellants' brief (filed Feb. 7, 2006) and reply brief (filed Jun. 19, 2006) for the arguments thereagainst.

Claims 1, 4 - 6, 9 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Yang and further in view of Gyotoku. Claims 10, 11, 13-15, 18, 19-21 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Yang. Claims 26-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Shi. Claims 12 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA and Yang and further in

view of Gyotoku. Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA and Yang and Gyotoku and further in view of Gledhill. Claims 16, 17, 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA and Yang and further in view of Gledhill.

OPINION

In reaching our decision in this appeal, we have given careful consideration to Appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by Appellants and the Examiner. As a consequence of our review, we make the determinations that follow.

35 U.S.C. § 103

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be

supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Prods. Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

When determining obviousness, “the [E]xaminer can satisfy the burden of showing obviousness of the combination ‘only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.’” In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), citing In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). “Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614,

1617 (Fed. Cir. 1999). “Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact.” Dembiczak, 175 F.3d at 999-1000, 50 USPQ2d at 1617, citing McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

Further, as pointed out by our reviewing court, we must first determine the scope of the claim. “[T]he name of the game is the claim.” In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Therefore, we look to the limitations as recited in independent claim 1. From our review of the Examiner’s rejection and the AAPA, we note that the AAPA teaches the totality of the claimed invention without the use of the heat dissipation layer and its placement in the AAPA electro-luminescent display.

With respect to independent claim 1, the Examiner relies upon the teachings of Yang and Gyotoku to suggest the use of a heat-dissipating layer over the metal electrode and a multi-layer protective film. We find that the combination of AAPA, Yang and Gyotoku teaches all of the elements of the claimed invention. Appellants argue that the combination does not teach or suggest a “protective film has a multi-layer structure of at least a moisture-absorbing layer and a moisture-proof layer” (Br. 6). We disagree with Appellants and find that the AAPA clearly teaches the two layer film and Appellants’ specification states at page 4 that “seal cover plate 7 contains a moisture-absorbing agent 8 and is attached with a supporting film 9 formed from a semi-transmitting film.” Therefore, we find that the AAPA teaches this claimed limitation. Additionally, we find no disclosure in Appellants’

specification that indicates that this film is any different than shown in the AAPA. Therefore, Appellants' argument is not persuasive. Appellants' arguments in the Brief concerning independent claim 1 rely solely upon that the Examiner does not rely upon AAPA and Yang for this element and focuses solely on the teaching of Gytoku (Br. 7). We opt to look at the totality of the teachings and what would have been obvious to one skilled in the art at the time of the invention in light of the totality. We find that the claimed invention is taught and fairly suggested by AAPA and Yang. Therefore, we will sustain the rejection of independent claim 1 and its dependent claims 4-6, 9 and 34.

With respect to independent claim 10, the Examiner relies upon the teachings of AAPA and Yang (Figure 3D) to teach the claimed invention. We agree with the Examiner and find that Yang would have suggested the placement of the heat-exhausting layer to be formed on the seal cover of the AAPA as one of the limited locations for it to perform the function of heat dissipation. Appellants argue that the "AAPA and Yang, whether taken separately or in combination, do not teach or suggest the claimed combination including at least the feature of 'an entire surface of the heat-exhausting film contacts the seal cover plate,' as recited by independent claim 10" (Br. 9; emphasis omitted) since the anodes of the EL display are not covered. We do not find this argument persuasive since the language of independent claim 10 only requires that the heat-dissipating layer is on the seal cover plate and the entire surface of the film contacts the seal cover plate. Appellants argue that "in Yang, the protective layer 38 covering the luminant layer 34 does not correspond to the claimed 'seal cover plate for

sealing the electro-luminescent layer.’ Since Yang fails to disclose [sic] a ‘seal cover plate,’ it fails to disclose a “heat exhausting layer formed on the seal cover plate, wherein an entire surface of the heat-exhausting film contacts the seal cover plate” (Reply Br. 3). We disagree with Appellants and find that layer 38 is the seal cover for the device of Yang which is covered and in contact with the heat-dissipating layer 40. While the device of Yang may be different than that of the EL device in the AAPA, the Examiner has relied upon the teachings of the AAPA to teach and suggest the structure of the layers of the EL device and relied upon Yang to suggest the use of a heat-dissipating layer on the EL on its seal cover plate. We find the Examiner’s combination well reasoned and founded.

We find that the entire surface of the heat-dissipating layer does contact the seal cover plate in Yang. The limitation of the seal cover plate sealing the EL device is clearly taught by the AAPA in Figure 1. Therefore, Appellants' argument is not persuasive and we will sustain the rejection of independent claim 10 and dependent claims 11, 13-15 and 18 which Appellants have grouped therewith.

We find that Appellants have included independent claim 19 in the heading with independent claim 10. Therefore, all these claims should stand or fall together. For completeness, we will address independent claim 19 separately below.

With respect to independent claim 19, Appellants argue that the combination of AAPA and Yang does not teach or suggest the “heat-exhausting film extends to contact the transparent substrate to cover the

protective layer" (Br. 9). Here, the Examiner relies upon the teachings of Yang in Figure 2D rather than in Figure 3D above and maintains that Yang teaches:

in embodiment 1 discloses (Fig. 2D, column 3 line 56 through column 4 line 27) a heat-exhausting layer (packaging shell with plurality of grids or metal layers) 29 made of metals of high thermal conductivity is formed on the protective film 28 to enhance the effect of heat dissipation. Figure 2D shows a cross-sectional view of the display along a line that intersects the anode 22, however a plurality of anodes are present (plurality of blocks 22 as anode) and thus at locations between the anodes the heat-exhausting layer 29 covering the display extends to contact the transparent substrate covering the protective layer [Answer, p. 8].

Here, the Examiner maintains that the packaging shell is made of heat dissipating material and contacts the transparent glass substrate through an adhesive (Answer, p. 8). Additionally, we find that Yang teaches that the heat-dissipating layer 28 contacts the transparent glass layers 20 and 22 of the substrate (Yang at column 3, lines 56-60).

With respect to the term "contact," the Examiner argues that Appellants have not defined the term "contact" in the specification (Answer, p. 9) and that the Examiner may interpret the term broadly. Here, we find that the ITO glass 20 and anodes 22 are both part of the transparent substrate in Yang. Appellants argue that Figure 4 of the instant application is part of the disclosure and discloses an exemplary embodiment. We agree with Appellants that this is merely an exemplary embodiment (Reply Br. 3) and hence does not define the term. Therefore, we disagree with Appellants'

conclusion that the combination does not disclose and fairly suggest the claimed invention, and we find that Yang teaches and suggests that the heat-dissipating layer should contact the substrate. Therefore, we will sustain the rejection of independent claim 19 and dependent claims 20, 21, and 25.

With respect to independent claim 26, Appellants argue that Shi does not teach that both the inorganic layer 26 and the epoxy encapsulant 28 do not adhere to the substrate 10 as required by the present claim language (Br. 11). Independent claim 26 recites that “a sealant for adhering the seal cover plate and the metal thin film to the transparent substrate, said sealant having a space for injecting an inactive gas, wherein an entire surface of the metal thin film contacts the seal cover plate.” The Examiner relies upon the teaching of Shi as to use a thin film under the seal with better encapsulation and resistance to permeation (Answer, pp. 11 and 18). This teaching would have been incorporated into the AAPA of Figure 1 under the seal cover plate 7. Therefore, both layers would have adhered to the substrate in combination with the AAPA and the entire surface of the thin metal film contacts the seal cover plate. Therefore, we find that the Examiner has set forth a prima facie case of obviousness of the invention as recited in independent claim 26. Appellants argue that the thin metal layer in Shi does not adhere to the substrate (Reply Br. 4). While the layer does not adhere directly to the substrate in Shi, we find that in combination with the AAPA, the thin metal layer would be in contact with the seal cover plate and would go to the substrate as with the seal and would be adhered directly or indirectly to the substrate. Therefore, Appellants' argument is not persuasive,

and we will sustain the rejection of independent claim 26 and dependent claims 27-33 grouped therewith by Appellants.

With respect to dependent claims 12 and 22, Appellants rely upon the asserted deficiency in the prima facie case of claims 10 and 19. Since we found a prima facie case of obviousness with respect to claims 10 and 19, we will sustain the rejection under 35 U.S.C. § 103 of dependent claims 12 and 22.

With respect to dependent claims 7 and 8, Appellants rely upon the asserted deficiency in the prima facie case of claim 1. Since we found a prima facie case of obviousness with respect to claim 1, we will sustain the rejection under 35 U.S.C. § 103 of dependent claims 7 and 8.

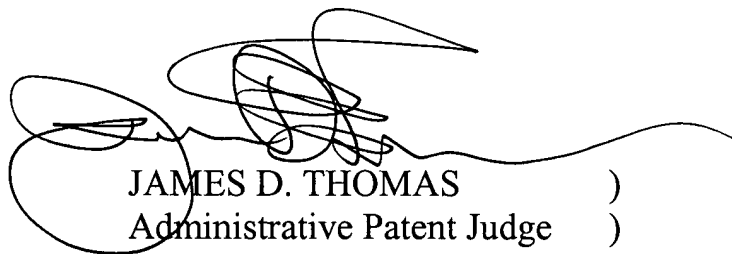
With respect to dependent claims 16-17 and 23-24, Appellants rely upon the asserted deficiency in the prima facie case of claim 1. Since we found a prima facie case of obviousness with respect to claims 10 and 19, we will sustain the rejection under 35 U.S.C. § 103 of dependent claims 16-17 and 23-24.


CONCLUSION


To summarize, we have sustained the rejections of claims 1 and 4-34 under 35 U.S.C. § 103.

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED


JAMES D. THOMAS)
Administrative Patent Judge)


JOSEPH L. DIXON) BOARD OF PATENT
Administrative Patent Judge) APPEALS
AND
INTERFERENCES)


JEAN R. HOMERE)
Administrative Patent Judge)

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